

HANKA, Ladislav, prof., inz., dr.

Relativistic analysis of classical experiments. Acta techn Cz 8  
no.2:101-111 '63.

1. Czech Technical University, Brehova 7, Praha 1 - Stare Mesto.

HANKA, Ladislav, prof., dr., inz.

Contribution to the relativity theory of electrodynamic processes  
in moving bodies. Acta techn Cz 7 no.4:335-344 '62.

1. Ceske vysoke uceni technicke, Praha 1 - Stare Mesto, Brehova 7.

HANKA, Ladislav, prof., inz., dr.

Induced transient phenomena in plane systems. El tech obzor  
51 no.8:378-382 Ag '62.

1. Ceske vysoke uceni technicke

Current fields in moving conductive... Z/042/62/000/001/001/002  
E197/E135

the case of thin layers of conductors (plates, rings, liquid metals) which move in a magnetic field and current fields generated by the axial movement of a thin film of liquid sodium in a spiral shaped electromagnetic pump. A metal layer of the width  $2b$  and thickness  $h \ll 2b$  moves between two walls of infinite permeability with constant speed in the direction  $y$ . At the boundary of this active layer are two copper bars, which shall be taken as of infinite conductivity. Phenomena in the  $z$ -direction only were considered and the zero points correspond to the sinusoidal magnetic field at distances  $a$ . Fig.3. Fig.4 shows the corresponding distribution of the field in the right half of the positive pole. The author points out the existence of a value  $y_0$  and of the non-symmetrical shape of the field along the  $x$  axis caused by the non-symmetrical nature of the total induction. There are 7 figures.

ASSOCIATION: České vysoké učení technické, Fakulta technické a jaderné fyziky, Praha

Card 2/4

34694

Z/042/62/000/001/001/002  
E197/E135

24,2500 (1057,1482)

AUTHOR: Haňka, Ladislav, Professor Doctor Engineer

TITLE: Current fields in moving conductive layers

PERIODICAL: Elektrotechnický časopis, no.1, 1962, 3-16

TEXT: The purpose of the paper is to investigate the shape of the steady state current field generated in a plane conducting layer which is in motion in a transverse sinusoidally distributed magnetic field. The author states that textbooks usually restrict the treatment of spatial flow to field potentials which are free of eddies. Accordingly, inside each homogeneous region the Laplace equation is taken as valid and the corresponding charge on the surface of the conductor is evaluated. However, if the medium moves in a magnetic field, another effect has to be added which is due to eddies. The author uses for the calculation of the total effect both scalar and vectorial potentials, and proceeds to evaluate the basic equations of current fields in plane layers, applying formulae for continuity and for eddy current. Then the author considers

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Z/017/61/050/001/002/003  
EO73/E535

### Geometry of Induction Pumps for Liquid Metals

the entire cross-section of the duct, without introducing serious errors, and the influence of the curvature of the ducts in the "cylindrical" and in the "spiral" pumps can be disregarded, provided that the dimensions of the active layers are within the usual limits. The speed distribution needs to be taken into consideration only in calculating the hydraulic losses. After deriving the basic relations, using particularly data published by Blake (Ref.4) and Tyutin (Ref.7), the optimum design of induction pumps is dealt with very briefly. In the conclusions it is stated that pumps for liquid fuels are of importance not only in nuclear engineering but also in various other applications, for instance, in automatic casting of non-ferrous metals, in chemistry and generally in heat exchangers. There are 10 figures and 9 references: 4 Czech and 6 non-Czech.

ASSOCIATION: ČVUT, Prague

SUBMITTED: June 18, 1960

Card 5/6

527

Z/017/61/050/001/002/003  
EO73/E535

#### Geometry of Induction Pumps for Liquid Metals

has already been elucidated by several authors (Refs. 7, 6, 4, 2)

9. The stator winding must be insulated to withstand the metal temperature of 300 to 500°C. The problem of insulation and cooling of the windings is very difficult.

10. In spiral pumps there are additional losses and a pressure drop as a result of the axial component of the metal speed.

Usually for linear pumps at normal frequencies the following values are obtained: efficiency 10 to 45%; power factor 0.2 to 0.5 for operating pressures of 1 to 5 atm and deliveries of 400 to

40 000 l/min. In spiral pumps the ducts are narrower and longer; therefore, they are suitable for smaller quantities up to 1500 l/min, higher pressures, of up to 10 atm; their efficiency does not exceed 25%, the power factor is above 0.5. These values apply to light metals (sodium, potassium etc.). Heavier metals cannot be economically pumped with induction pumps. The average efficiency of induction pumps is worse than that of conduction pumps and, therefore, they are more suitable for lower ratings. According to Lyutin (Ref. 7), in calculating the pressure, the performance and the losses in the metal, the speed of the metal can be assumed constant throughout.

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EO73/E535

### Geometry of Induction Pumps for Liquid Metals

5. The pure resistance of the secondary is relatively large so that the pump operates as a motor with a resistance continuously switched into the rotor circuit, i.e. with a high slip (0.2 to 0.5). The losses in the secondary are also relatively higher.
  6. In linear types additional pulsating fields occur in the stator yoke due to the inflow and outflow ends where the regular magnetic circuits are disturbed. This brings about a drop in power and an increase in the losses. A leakage flux occurs between the heads of the stator yokes resulting in a reactance drop and losses in the tube and in the metal.
  7. The inflow and outflow couplings in the flat (Fig.1a) and the spiral (Fig.1c) pumps do not have a zero impedance and, therefore, the current density will have components also in the direction  $z$  of the movement of the metal resulting in additional losses and further deformations of the field.
  8. The hydraulic losses are larger than the mechanical ones in motors. The dynamic effects of the magnetic field on the flow fibres are also higher, which brings about a change in the speed distribution along the height of the duct. This special problem
- Card 3/6



0035

Z/017/61/050/001/002/003  
E073/E535

#### Geometry of Induction Pumps for Liquid Metals

the stator windings. Even for low inductions  $B$  the power factor is low. For better utilization of the space, the slot width of the stator is made relatively large (1.5 to 2.5 teeth widths).

2. The massive layer of the metal forming the secondary has a skin effect and the field in the gap is considerably deformed, as a result of this the losses in the metal increase and the efficiency decreases; this is another limiting factor in choosing the dimension  $a$ .

3. In the active zone of the pump losses occur in the duct walls. The thickness of these walls cannot be made too small in view of the danger of vibration of the wall in the magnetic field (danger of resonance).

4. The leakage reactance of the secondary is small, since the "rotor teeth" are infinitely thin and their dimension is reduced further by the skin effect. In "cylindrical" pumps (Fig. 1b), the heads of the secondary windings are completely absent and usually the entire reactance of the secondary is disregarded so that the wave of the secondary current density is in phase with the wave of the main field.

Card 2/6

E535

Z/017/61/050/001/002/003  
E073/E535

26.2140 also 2316

AUTHOR: Haňka, Ladislav, Professor Engineer Doctor

TITLE: Geometry of Induction Pumps for Liquid Metals

PERIODICAL: Elektrotechnický obzor, 1961, Vol. 50, No. 1, pp. 38-44

TEXT: In earlier articles Z. Ledr (Ref. 1) and I. Hlásník (Ref. 2) dealt with conduction pumps. In this article induction pumps are dealt with. Their basic theory is similar to that of rotary induction machines but there are some differences which have to be taken into consideration in the design. The magnetic induction wave of the direction  $x$  (Fig. 1a) moves in the direction  $z$  with the speed  $v_s$ . The metal flows with a speed  $v < v_s$  through a thin stainless steel duct of the dimensions  $a \times b$ . Several variants of such asynchronous pumps have been manufactured, which differ as regards the shape of the duct in the directions  $y$  and  $z$ . The following are the main differences between induction pumps and asynchronous motors:

1. The non-ferromagnetic gap is much larger in pumps, at least 4 mm but it may also be 20 to 40 mm. In view of the hydraulic losses, the height  $a$  of the duct must not be too small. Furthermore the gap must also contain thermal insulation for protecting

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HANKA, L.

"Development of electrical engineering and electric-power production, and human society."  
Technicka."

Elektrotechnicky Obzor. Praha, Czechoslovakia. Vol. 48, no. 2, Feb. 1959.

Monthly list of East European Accessions (EEAI), LC, Vol. 8, No. 6, Jun 59, Unclass

HANKA, L.

"Ten years of the Research Institute for High-Voltage Electrical Engineering.  
p. 70 (Elektrotechnický Obzor. Vol. 47, no. 2, Feb. 1958, Praha, Czechoslovakia)

Monthly Index of East European Accessions (FEAI) IC, Vol. 7, No. 6, June 1958

HANKA, L.

"The collaboration of socialist countries in electrical engineering."

p. 369 (Elektrotechnik) Vol. 12, no. 12, Dec. 1957  
Prague, Czechoslovakia

SO: Monthly Index of East European Accessions (EEAI) LC. Vol. 7, no. 4,  
April 1958

HANKA, Ladislav

CZECHOSLOVAKIA/Nuclear Physics - Nuclear Power and Technology

C-8

Abs Jour : Ref Zhur - Fizika, No 4, 1958, No 7934

Author : Hanka Ladislav

Inst : Not Given

Title : Information on the Soviet Atomic Electric Station

Orig Pub : Jaderna energie, 1957, 3, No 8, 234-244

Abstract : No abstract

Card : 1/1

HANKA, L.

A conference on the use of aluminum instead of copper in electric technology.

p. 316 (Nova Technika) Vol. 2, no. 10, Oct. 1957, Praha, Czechoslovakia

SO: MONTHLY INDEX OF EAST EUROPEAN ACCESSIONS (SEAI) IC, VOL. 7, NO. 1, JAN. 1958

ILLEGIBLE



Hanka, I.

Tasks of the science of electrical engineering. p. 275.  
ELEKTROTECHNICKY OBZOR. (Ministerstvo strojirenstvi a Ministerstvo  
paliv a energetiky) Praha. Vol. 45, no. 6, June 1956.

Source: EEAL LC Vol. 5, No. 10 Oct. 1956

HANKA, L.

The foundation and future activities of the Czechoslovak Scientific-  
Technical Society for Electrical Engineering. p. 449.

ELEKTROTECHNICKY OBZOR. Praha, Czechoslovakia, Vol. 44, No. 9,  
Sept. 1955.

Monthly list of East European Accessions, (EEAI) LC, Vol. 8, No. 10,  
Oct. 1959.  
Uncl.

Rahm, L.

Contribution of the past volume of ELK-ir technology to our  
electrical engineering. a. b.  
(ELEKTRONICHESKIY OBSER, Vol. 42, no. 1, Jan. 1955, pp. 1)

34: Monthly List of Acad. Bureau Association, (SRM), Vol. 1, no. 11, 12,  
Nov. 1955, Incl.

HANKA, L.

Hanka, L. Establishing the Scientific-Technical Society of Electrical Engineering. p.201.

Vol. 10, no. 8, Aug. 1955 ELEKTROTECHNIKA Praha, Czechoslovakia

SO: Monthly List of East European Accessions, (LAL), LL, Vol. 5, No. 2  
February, 1956

HANNA, I.

HANNA, I. Distribution of production progress among the countries of the socialist camp. p. 411.

Vol. 8, No. 11, Nov. 1960  
Journal of Soviet Military Medicine  
TOBACCO  
Index, On classification

See: Soviet European Association, Vol. 8, No. 11, p. 411

HANKA, L.

Contribution to the discussion of economic problems in research institutes, p. 83, ZA SOCIALISTICKOU VEDU A TECHNIKU (Pripravny vybor vedeckych technickch spolecnosti pri ceskoslovenske akademii ved) Praha, Vol. 5, No. 2, Feb. 1955

SOURCE: East European Accessions List (EEAL) Library of Congress, Vol. 4, No. 12, December 1955

Hanka, L.

Preparation of the plan of research work. p. 305. NOVA TECHNICA.  
(Rada vedeckych technickych spolecnosti pri Ceskoslovenske akademii  
ved) Praha. Vol. 4, no. 7, July 1954.

Source: EEAL LC Vol. 5, No. 10 Oct. 1956

HANKA, L.

HELLER, B., HANKA, L.

"Research in Heavy Current Electric Engineering in Czechoslovakia," p. 181.  
(Elektrotechnický Obzor, Vol. 42, No. 4, Apr. 1953, Praha.)

SO: Monthly List of East European Accessions, Vol. 2, No. 9, Library of Congress, September 1953, Uncl.



HANKA, I.

"Integrated Solution of Tasks in Research and Development." p. 526 (Za Socialistickou Vedu A Techniku, Vol. 3, no. 12, Dec. 1953, Praha)

SO: Monthly List of East European Vol. 3, No. 3 1954  
Russian Accessions, Library of Congress, March 1954, Uncl.

HANK, O.

Data on farming which used irrigation. p. 161.  
(KÖZGAZDASÁGI. Vol. 11, no. 1/4, 1957. Budapest, Hungary)

SO: Monthly List of East European Accessions (LHML) 11. Vol. 6, no. 12, sec. 1947.  
Incl.

M

HUNGARY/Cultivated Plants - Grains

Abs Jour : Ref Zhur Biol., No 12, 1958, 53571

Author : Hank, Oliver

Inst : Hungarian AS

Title : Corn Growing with Irrigation

Orig Pub : Magyar tud. akad. a. partud. oszt. közl., 1956, 9, No 4,  
387-390

Abstract : This article gives the results of single and multiple waterings using different fertilizing rates. During the period of the study (1952-1955) the average increase in corn yield with a full rate of fertilizers without irrigation amounted to 13% in comparison with the control (without fertilizers and without irrigation). With a single watering and with the full rate of basic fertilizer the increase was 55%. With a single watering, with

Card 1/2

2

HANK, Endre, dr.

Sterogenol in gynecology. *Magy. noorv. lap.* 17 no.4:249-252  
July 54.

1. Budapesti Tetenyi-uti Povarosi Korhaz (Igazgato-foorvos:  
Zellner Pal dr.) szuleszetnogyogyaszati osztalyanak (Osztalyvezeto-  
foorvos: Zagon Andros dr.) kozlemenye.

(GYNECOLOGICAL DISEASES, therapy,  
cetylpyridinium bromide)

(ANTISEPTICS, therapeutic use,  
cetylpyridinium bromide in gyn. dis.)

ILLEGIBLE

L 8265-66

ACCESSION NR: AP5018475

in a tube of straight conductors and of the plasmoid and the Marshall jet is the great nonuniformity of the internal magnetic field. "This work was carried out at the instigation of Assistant Professor J. Kracik to whom the authors are grateful." Orig. art. has: 2 figures.

ASSOCIATION: Institute of Solid State Physics, Czechoslovak Academy of Sciences, Prague; Electrotechnical Faculty, Czechoslovak Technical University, Prague

SUBMITTED: 01Mar65

ENCL: 00

SUB CODE: ME

NR REF SOV: 000

OTHER: 000

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Card 2/2

L 8265-66 EWT(1)/ETC/EPF(n)-2/EWG(m) IJP(c) AT  
 ACCESSION NR: AP5018475

CZ/0055/65/015/007/0534/0535 34

<sup>44,55</sup> <sup>44,55</sup> <sup>44,55</sup>  
 AUTHOR: Sobra, K.; Kalivoda, L.; Hanitz, F.

TITLE: Contribution to study of splitting of plasma shock waves in accelerating tube

SOURCE: Chekhoslovatskiy fizicheskiy zhurnal, v. 15, no. 7, 1965, 534-535, and insert on p. 540a

TOPIC TAGS: <sup>21,44,55</sup> plasma shock wave, shock wave structure, <sup>21,44,55</sup> plasmoid acceleration, plasma magnetic field

ABSTRACT: The authors have observed that when a shock wave is accelerated between straight conductors in a plasma, the plasmoids are emitted with different velocities, thus indicating a splitting of the shock wave. Since this phenomenon is similar to that occurring in a Marshall jet, the authors attempt to attribute it to a similarity in the configuration of the internal magnetic field in both cases. Just as in the Marshall tube the magnetic field at the middle conductor is larger than at the jacket, so is the magnetic field inside straight conductors much larger at the two conductors than in the middle between them. The authors therefore express the opinion that one of the main causes of the splitting of the shock wave

Card 1/2

0902 0187



GROSZ, Istvan, dr.; HANISCH, Jozsef, dr.

Significance of Trilen anesthesia in eye surgery in children.  
Orv. hetil. 106 no.40:1901-1902 3 0 '65.

1. Fovarosí Janos Korhaz, Szemeszeti Osztaly (foorvos: Gross,  
Istvan, dr.).

HANISCH, Jozsef

New treatment of keratoconjunctivitis epidemica using emetine  
Szemeszet 99 no. 1:29-33 Mr '63

1. Fovarosí Janos Korhaz (Igazgato: Tako Jozsef) szemosztalyanak  
(Fo orvos: Grosz Istvan, az orvostudomanyok kandidatusa) kozlemenye.  
(KERATOCONJUNCTIVITIS) (EMETINE) (VISION)

POLAND/Human and Animal Physiology. Blood

T-4

Abs Jour : Ref Zhur - Biol., No 14, 1958, No 65078

Author : Szurman Jan, Hanisch Jerzy

Inst : -

Title : High Voltage Paper Electrophoresis of Pig Serum

Orig Pub : Med. weteryn., 1956, 12, No 1, 44-45

Abstract : The use of a higher potential difference and vertical positioning of the paper strip seppds the electrophoretic determination of protein fractions up to 45 minutes and increases the definition of the electrophoretogram. The plan of an apparatus constructed by the author is presented; a potential of 1500 v. was employed at a current strength of 7 ma. -- L.S. Rotfel'd

Card : 1/1

HANIS, H.

Development and organization of maintenance in the socialist metallurgical industry.

P. 349 (Hutník, Vol. 7, no. 10, Oct. 1957, Praha, Czechoslovakia)

Monthly Index of East European Accessions (EMAI) LC. Vol. 7, no. 2,  
February 1958

SALES, E.

Development trends in the production of a blast-furnace blow. p. 217.  
(HSTNIK, Vol. 7, no. 7, July 1957, Praha, Czechoslovakia)

53: Monthly List of East European Accessions (EEAL) 10, Vol. 6, no. 12, Dec 1957. Incl.

ILLEGIBLE

HANIS, H.

✓ Excessive Stocks of Supplies for Maintenance Purposes.  
H. Hanis. (*Hutnické Listy*, 1955, 10, (1), 10-21). (In Czech).  
The problem of the origin of the accumulation, prevention  
of accumulation, and planning of depletion of surplus main-  
tenance stocks is analyzed.—P. F.

HANIS, H.

Use of baked metals in the maintenance of machinery. p. 157.  
(HUTNIK, vol. 5, no. 5, May 1955, Praha)

SO: Monthly List of East European Accession, (EEAL), LC, Vol. 4, No. 11,  
Nov. 1955, Uncl.



HANIS, H.

Maintenance of machinery in the metallurgic industry. p. 145.  
(HUTNIK, vol. 5, no. 5, May 1955, Praha)

SO: Monthly List of East European Accession, (EEAL), LC, Vol. 4, No. 11,  
Nov. 1955, Uncl.

HANIS H.

✓ Some Remarks Concerning the Repair of Blast-Furnaces.  
H. Hanis. (Hutník, (Prague), 1955, 5, (1), 12-14). [In Czech].  
MG The principles of efficient organization and successful repairs  
are analysed.—v. r.

Ed  
RMT

HAMES, H.

Some remarks on blast-furnace repairs. 1.12.  
(HUTNIK, Vol. 4, no. 1, Jan. 1955, Praha)

30: Monthly List of East European Accessions, (EUAL). 12, V. 1, No. 11,  
Nov. 1955, Encl.

Hanis, H.

Economy in supplying maintenance sections. p. 355. HUTNIK.  
(Ministerstvo hutniho prumyslu a rudnych dolu) Praha. Vol. 4,  
no. 12, Dec. 1954.

Source: ETAL LC Vol. 5, No. 10 Oct. 1956

HANINEC, Anton

Surgical treatment of tuberculosis of the ribs. Rozhl. chir. 39  
no.3:179-184 Mr '60

1. II. chirurgické oddelenie LU Vyšné Hagy, prednosta dr. Haninec.  
(RIBS, dis.)  
(TUBERCULOSIS, OSTEOARTICULAR, surg.)

HANINEC, A.

Antibiotics effects of Barbarea vulgaris extracts on Mycobacterium tuberculosis. Bratisl. lek. listy 32 no. 1-2:53-57 1952. (CLML 23:5)

1. Of the Surgical Department of Masaryk Medical Institute, Vysne Hazy.

HANINEC, A.

Complications in peridural anesthesia. Bratisl. lek. listy  
31 no.7-8:702-718 1951. (CLML 22:3)

1. Of the Surgical Department of Masaryk Therapeutic Institute,  
Vysne Hagy.

HANIK, L.

Chronic idiopathic jaundice with conjugated bilirubin in the blood. Rotor's syndrome. Cas. lek. cesk. 103 no.25:708-712  
19 Je'64

1. I. interni klinika fakulty vseobecneho lekarstvi KU  
[Karlovy University] v Praze; prednosta: prof. dr. V.Hoenig,  
DrSc.



GREGOR, O.; ANDRYSEK, O.; BEDNAR, B.; VANECKOVA, O., doc. dr.; HANIK, L.;  
SISTEK, V.

Diagnosis of stomach cancer with P32. Acta univ. Carol. [med]  
(Praha): Suppl. 18: 69-75 '64.

1. I. interni klinika fakulty vseobecneho lekarstvi University  
Karlovy v Praze (prednosta: prof. dr. V. Hoenig); Biofysikalni  
ustav fakulty vseobecneho lekarstvi University Karlovy v Praze  
(prednosta: doc. dr. Z. Dienstbier); I. patologickoanatomicky  
ustav fakulty vseobecneho lekarstvi University Karlovy v Praze  
(prednosta: prof. dr. B. Bednar) a Chirurgicke oddeleni fakultni  
nemocnice II (prednosta: doc. dr. O. Vaneckova).

HANIK, L.

Apropos of some of the most frequent causes of jaundice. Cas.  
lek. cesk. 103 no.20:86-94 15 My'64

1. I. ~~interni klinika fakulty~~ vseobecneho lekarstvi KU [Karlovy  
university) v Praze; prednosta: prof. dr. V.Hoenig, DrSc.

HANKA, Ladislav, prof., inz. dr.

Relativistic solution of current fields in moving bodies.  
El tech obzor 52 no.12:636-640 D '63.

GREGOR, O.; BEDNAR, B.; JIRASEK, A.; VOSLAROVA, Z.; HANIK, L.

The importance of achlorhydria as a functional correlation in atrophic gastritis. A contribution to the early diagnosis of cancer of the stomach. Cas. lek. cesk. 101 no.29/30:893-895 20 J1 '62.

1. I interni klinika fakulty vseobecneho lekarstvi KU v Praze, prednosta prof. dr. V. Hoenig - I patologickoanatomicky ustav fakulty vseobecneho lekarstvi KU v Praze, prednosta prof. dr. B. Bednar.

(STOMACH NEOPLASMS diag) (GASTRIC JUICE chem)  
(GASTRITIS chem)

HANIK, LADISLAV

1. "Speculations," Doherty, J. 1937, pp. 12-13.
2. "The History of the Republic of Poland," pp. 12-13.
3. "The History of the Republic of Poland," pp. 12-13.
4. "The History of the Republic of Poland," pp. 12-13.
5. "The History of the Republic of Poland," pp. 12-13.
6. "The History of the Republic of Poland," pp. 12-13.
7. "The History of the Republic of Poland," pp. 12-13.
8. "The History of the Republic of Poland," pp. 12-13.

HANIK, Jan

Wladyslaw Satke; May 25, 1853- Sept. 23, 1904. Przegl geofiz  
8 no.3:161-172 '63.

1. Panstwowy Instytut Hydrologiczno-Meteorologiczny, Krakow.

ORSZAGH, Jan; HANIGEROVA, Miroslava

Observations on disorders of Bell's phenomena. Cesk. neur. 24 no.4:  
273-274 J1 '61.

(BRAIN wds & inj) (BRAIN STEM wds & inj)  
(FACIAL NERVE dis) (HEMATOMA etiol)

L 40817-08

ACC NR: AP6013153

contains information with the parameter  $0 > 0_0$  or  $0 < 0_0$ . This is determined by sending a pulse form the electrical monitoring system with simultaneous reset of the differential counter. [Translation]

SUB CODE: 09/ SUBM DATE: 02Mar65

Card 2/2 *LC*



ACC NR: AP6013153

(A)

SOURCE CODE: CZ/007B/66/000/004/0019/0010

INVENTOR: Drab, Frantisek (Engineer; Plzen); Haninger, Ladislav (Engineer; Plzen)

ORG: None

TITLE: [A noise filter] CZ Pat. No. PV 1868-65, Class 21a

SOURCE: Vynalezky, no. 4, 1966, 10

TOPIC TAGS: electric filter, signal noise separation, pulse generator, pulse counter

ABSTRACT: This patent introduces a circuit for optimum suppression of the noise in a useful signal. A statistical sample  $Y(y_1, \dots, y_n)$  is substituted for the signal  $y(t) = s(t) + i(t)$  by the use of controlled interlocking units. The useful signal is fed through threshold interlocking devices to the first input of the controlled interlocking unit. The second input of these units is connected to a random pulse generator. One of the weighted numbers (-1, 0, +1) is added to each member of the sample  $y_i$  according to the rule  $(y_i \cdot y_0 \rightarrow +1; y_i \cdot y_0 \rightarrow -1; y_0 \cdot y_i \cdot y_0 \rightarrow 0)$ . A differential counter attached to the controlled interlocking units is used for sequential analysis of the resultant series. The instantaneous state of the counter is continuously monitored by an electric system which is connected through a feedback circuit to the differential counter. The result of the sequential analysis shows whether the useful signal

Card 1/2

The use of a pulse fission chamber ... Z/038/62/000/007/001/006  
D409/D301

Závody V. I. Lenina, Plzeň (V. I. Lenin Works, Plzeň )  
(L. Haniger)

Card 3/3

The use of a pulse fission chamber ...

Z/038/62/000/007/001/006  
D409/B301

integrator with an adjustable time constant; the integrator output was connected to the comparator of a regular reactor control system, and the output voltage of the latter was again amplified (amplidyne) and fed to the control-rod drive. The applicability of this control system was tested and verified at constant reactor power which could be maintained with sufficient accuracy, especially when integrator-time constant  $\leq 0.5$  sec were chosen. The influence of gamma radiation on the control-system operation could reliably and completely be suppressed even under most unfavorable conditions; also the operating range of reactor power and period control could considerably be expanded. A further expansion can be expected by using a more sensitive pulse chamber. An actual, fully automatic reactor control system, using a moving pulse fission chamber, has already been developed with the aid of the described tests. The author gives credit to Milan Pospíšil of the EVIL Works and to Milan Capek of the ÚJV in Řež. There are 4 figures. (Technical Editor: K. Wagner)

ASSOCIATION: Ústav jaderného výzkumu ČSAV, Řež (Nuclear Research Institute, Czechoslovak AS, Řež) (P. Kovanic);

Card 2/5

38928

Z/038/62/000/007/001/006

D409/D301 /6

2:67

AUTHORS: Kovanic, Pavel and Haniger, Ladislav

TITLE: The use of a pulse fission chamber for automatic control of reactor power and period

PERIODICAL: Jaderná energie, no. 7, 1962, 221 - 224

TEXT: The article describes test results which prove the applicability and advantages of a pulse fission chamber for the automatic control of reactor power and period. The tests, described in P. Kovanic and L. Haniger (Ref. 2: Výzkum regulace reaktoru pohyblivou impulsní stěnou komorou (Research on reactor control with a moving pulse fission chamber) ÚJV Paper No. 446 and ZVIL No. Ae 79/Dok), were performed in 1960 on a Czechoslovak VVR-S reactor controlled by a moving pulse fission chamber of the following design: A moving probe - consisting of a pulse chamber (sensitivity 0.12 pulses/sec/neutron-flux unit) and a pre-amplifier - was suspended in the vertical reactor channel; pulses derived from the pre-amplifier were amplified further by an 80 dB broad-band amplifier, and their frequency measured by a linear

Card 1/3

HANICKI, Zygmunt, PACZKE, Zuzanna, WIERNIKOWSKI, Adam, HIRSZEL, Przemyslaw;  
SWADZDOWSKI, Zbyslut; BOSZAL, Jozef; DUBZYK, Krystyna

Result of activities of the center of extracorporeal dialysis  
in Krakow. Pol. tyg. lek. 19 no.35:1330-1332 31 Ag '64.

1. Z II Kliniki Chorob Wewnętrznych Akademii Medycyny  
Krakowa (kierownik: prof. dr med. St. Kirmayer).

STRUZIK, Tadeusz; HANICKI, Zygmunt; HAWIGER, Jacek; BIERNACKA, Bogdana.

Cryocoagulopathy with presence of immunoantithrombin in the course of lupus erythematosus disseminatus. Acta med. pol. 5 no.1:61-80 '64

1. IInd Clinic of Internal Diseases, Medical Academy, Cracow (Director: Doc.Dr. S.Kirchmayer); Department of Medical Microbiology, Medical Academy, Cracow (Director: Prof.Dr. Z.Przybylkiewicz).

\*

HAWIGER, Jacek; HANICKI, Zygmunt; STRUZIŁ, Tadeusz

On the immunologic nature of antithrombin in the course of  
lupus erythematosus disseminatus. Acta med. pol. 5 no.1:  
53-60 '64

1. IInd Clinic of Internal Diseases, Medical Academy,  
Cracow (Director: Doc.Dr. S. Kirchmayer); Department of  
Medical Microbiology, Medical Academy, Cracow (Director:  
Prof. Dr. Z.Przybylkiewicz)

\*

HANICKI, Zygmunt; HAWIGER, Jacek; HIRSZEL, Przemyslaw;  
TWARDOWSKI, Zbyslut

On some aspects of the antibodies deficiency syndrome. Acta  
med. pol. 4 no.2:229-241 '63.

1. II Clinic of Internal Diseases, Medical Academy, Cracow  
Director: Prof. Dr T. Tempka Department of Medical Microbiology,  
Medical Academy, Cracow Director: Prof. Dr Z. Przybylkiewicz.  
(AGAMMAGLOBULINEMIA) (BLOOD PROTEIN DISORDERS)  
(ANTIBODY FORMATION)



HANIŃKI, Zygmunt; CHŁAP, Zbigniew

On difficulties in the differential diagnosis of erythremic myelosis (primary or secondary?) in the course of carcinosis. Polskie arch. med. wewn. 32 no.3:327-338 '62.

1. Z II Kliniki Chorob Wewnętrznych AM w Krakowie Kierownik: prof. dr nauk med. T.Tempka i z Zakładu Anatomii Patologicznej AM w Krakowie Kierownik: prof. dr nauk med. J.Kowalczykowa.  
(BLOOD DISEASES diag) (STOMACH NEOPLASMS diag)

TEMPKA, Tadeusz; HANICKI, Zygmunt; URASINSKI, Ignacy

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Pelger-Huet anomaly associated with limited partial albinism.  
Cytochemical studies on Pelger's blood cells. Polskie arch.  
med. wewn. 31 no.4:583-588 '61.

1. Z II Kliniki Chorob Wewn AM w Krakowie Kierownik: prof. dr  
n. med. T. Tempka.

(LEUKOCYTES) (ALBINISM compl)

HANICKI, Zygmunt

Results of butazolidine therapy of malignant granuloma. Polski tygod.  
lek. 16 no.15:557-558 10 Ap '61.

1. Z II Kliniki Chorob Wewnętrznych A.M. w Krakowie; kierownik: prof.  
dr T. Tempka.

(PHENYLBUTAZONE ther) (HODGKIN'S DISEASE ther)

HANICKI, Zygmunt

Considerations on the cytomorphology and nomenclature of eosinophilic granulomas. Polski tygod. lek. 16 no.11:396-398 13 Mr '61.

1. Z II Kliniki Chorob Wewnętrznych A.M. w Krakowie; kierownik: prof. dr T. Tempka.

(EOSINOPHILIC GRANULOMA pathol)

HANICKI, Z.

The problem of hemophilia A. and antihemophilic globulin deficiency in heterozygous women. Folia biol 8 no.1/2:105-118 '60. (EEAI 10:4)

1. Medical Clinic II, Medical Academy, Krakow; head Prof. Dr. T.Tempka.

(WOMAN)  
(HETEROZYGOSIS)  
(HEMOPHILIA)  
(GLOBULIN)

HANICKI, Zygmunt

Classical hemophilia and anti-hemophilic globulin deficiency in heterozygotic women. Polski tygod.lek. 15 no.7:250-255 15 F '60.

1. Z II Kliniki Chorob Wewnetrznych A.M. w Krokowie; prof.dr. T. Tempka.

(HEMOPHILIA genetics)

(HEMORRHAGIC DIATHETIS genetics)

HANICKI, Zygmunt, przy współpracy technicznej Bogusławy Biernackiej

Hemophilia in a woman with observations on a case. Polskie arch.  
med. wewn. 29 no.7:953-957 1959

1. Z II Kliniki Chorob Wewnętrznych A. M. w Krakowie Kierownik:  
prof. dr nauk med. T. Tempka.  
(HEMOPHILIA, case reports)

CETNAROWICZ, Jan; HANICKI, Zygmunt; KIRCHMAYER, Stanislaw; KOSTKOWSKI, Andrzej;  
MRUK, Jozef; WIEJOWSKI, Michal, (czesc kliniczna); GOLINSKI, Kazi-  
mierz, (czesc radiologicznz).

Clinical aspects of diseases of the osteo-hemoietic system according  
to data of the Second Internal Clinic of the Academy of Medicine in  
Krakow. Polskie arch. med. wewn. 29 no.2:224-240 1959.

1. Z II Kliniki Chorob Wewnetrznych A. M. w Krakowie Kierownik prof.  
dr med. T. Tempka. Adres: Krakow, ul. Kopernika 15. II Klinika Chor.  
Wewn. A.M.

(BLOOD DISEASES, statist.  
hosp. statist. (Pol))



HANICKI, Zygmunt; LIBANSKY, Josef

Cytomorphology of osteoblasts and osteoclasts; their appearance in various diseases with special reference to hematological diseases. Polskie arch. med. wewn. 29 no.2:219-224 1959.

1. Z II Kliniki Chorob Wewnetrznych A.M. w Krakowie Kierownik: prof. dr med. T. Temoka i z Oddziału Alinicznego Instytutu Hematologii i Przetaczania Krwi w Pradze Kierownik: doc. dr J. Libansky. Adres: Krakow, ul. Wyspianskiego 11.

(BLOOD DISEASES, pathol.

osteoblasts & osteoclasts (Pol))

(BONE AND BONES,

osteoblasts & osteoclasts in blood dis. (Pol))

HANICKI, Zygmunt

Results of treatment of thromboses and thrombophlebitis with irgapyrine.  
Polskie arch.med.wewn. 28 no.5:817-819 1958.

1. Z II Kliniki Chorob Wewnętrznych A.M. w Krakowie. Kierownik:  
prof. dr nauk. med. T. Tempka. Adres: Krakow, Klinika Chorob Wewn.  
A.M. ul Kopernika 15.

(AMINOPYRINE, ther. use

irgapyrin in thromboses and thrombophlebitis (Pol))

(PHEYLIBUTAZONE, ther.

same (Pol))

(THROMBOSES, ther.

irgapyrin, statist. (Pol))

(THROMBOPHLEBITIS, THER.

same (Pol))

HANICKI, Zygmunt (Krakow, Wyspianskiego 11/3)

Daraprim therapy of true erythremia. Polskie arch.med. wewn. 28  
no.3:397-400 1958.

1. Z II Kliniki Chorob Wewnętrznych A.M. w Krakowie. Kierownik:  
prof. dr nauk med. T. Tempka.  
(POLYCYTHEMIA VERA, therapy  
pyrimethamine (Pol))  
(ANTIMALARIALS, therapeutic use  
pyrimethamine in polycythemia vera (Pol))

HANICKI, Zygmunt; HANICKA, Magdalena

The picture of granulocyte chromatin as basis for establishing sex. Polski tygod. lek. 12 no.15:564-567 8 Apr 57.

1. (Z II Kliniki Chorob Wewnętrznych; kierownik: prof. dr. T. Tempka i z Kliniki Chorob Dzieci; kierownik: prof. dr. T. Giza, A.M. w Krakowie). Adres: Krakow, II Klinika Chorob Wewnętrznych, Kopernika 15.

(SEX CHARACTERISTICS

sex determ. by leukocyte sex chromatin picture (Pol))

(LEUKOCYTES

sex chromatin picture in determ. of sex (Pol))

HANICKI, Zygmunt

Extracorporeal dialysis of blood with the so-called artificial kidney. Polski tygod. lek. 12 no.4:140-145 21 Jan 57.

1. (Z II Kliniki Chorob Wewnetrznych A.M. w Krakowie; kierownik: prof. dr. T. Tempka). Adres: Krakow, ul. Wyspianskiego 11.  
(KIDNEYS, artificial  
review (Pol))

HANICKI, Zygmunt

Case of recurrent post-partum acquired hemolytic anemia.  
Polskie arch.med. wewn. 26 no.11:1731-1733 1956.

1. Z II Kliniki Chorob Wewnętrznych A.M. w Krakowie  
Kierownik: prof. dr. nauk med. T. Tempka. Krakow, ul.  
Wyspińskiego 11.

(ANEMIA, HEMOLYTIC, case reports,  
post-partum recur. acquired (Pol))  
(PUERPERIUM, complications,  
anemia, hemolytic recur. acquired (Pol))

HANICKI, ZYGMUNT

✓ Plasmocytic leukemia with  $\alpha_2$ - and  $\gamma$ -hyperglobulinemia and extensive cutaneous manifestations. Zygmunt Hanicki (Acad. Med., Cracow, Poland). *Casopis Lékařská* 94, 996-1000 (1955). — In a case of plasmocytic leukemia with extensive infiltrations 18.7%  $\alpha$ -globulin and 28.2%  $\gamma$ -globulin were found by electrophoresis. Traces of protein were present in the urine; Bence-Jones protein was absent. I. M. Flais

HANICKI, Zygmunt, Dr., Med.

Plasmocytic leukemia with  $\alpha_2$ ,  $\gamma$ -hyperglobulinemia, and with extensive cutaneous changes. Cas. lek. cesk. 44 no.37:996-1000 9 Sept 55.

1. Z II. kliniky chorob vnitřních Lekarske akademie v Krakove, predn. prof. Dr. T. Tempka, a z Ustavu patologické anatomie Lekarske akademie v Krakove, predn. prof. Dr. J. Kowalczykowa.

(LEUKEMIA

plasma cell, with  $\alpha_2$ ,  $\gamma$ -hyperglobulinemia & cutaneous manifest.)

(SERUM GLOBULIN

$\alpha_2$ ,  $\gamma$ -hyperglobulinemia in plasma cell leukemia, with cutaneous manifest.)

(SKIN, in various diseases

leukemia, plasma cell, with  $\alpha_2$ ,  $\gamma$ -hyperglobulinemia.)



GOLINSKI, Kazimierz; HANICKI, Zygmunt

Problem of the group diseases: eosinophilic granuloma, Hand-Schuller-Christian disease, Letterer-Siwe disease. Polskie arch. med. wewn. 25 no.6a:1265-1273 1955.

1. Z II Kliniki Chorob Wewnętrznych A. M. w Krakowie Kierownik: prof. dr. nauk med. T. Tempka Krakow, Wyspińskiego 11/3.

(EOSINOPHILIC GRANULOMA

relation to Hand-Schuller-Christian synd. & Letterer-Siwe dis. (Pol))

(LIPOIDOSIS

Hand-Schuller-Christian synd., relation to eosinophilic granuloma & Letterer-Siwe dis. (Pol))

(RETICULOENDOTHELIOSIS

Letterer-Siwe dis., relation to eosinophilic granuloma & Hand-Schuller-Christian synd. (Pol))

HANICKI, Zygmunt

Hemorrhagic diathesis in the course of regulation disorders of the hemopoietic system. Polskie arch. med. wewn. 25 no.1a:191-193 1955.

1. Z II klin. chor. wewn. A.M. w Krakowie; kier. prof. dr. T.Tempka.  
(HEMORRHAGIC DIATHESIS, complications  
thrombopenia with bone marrow aplasia caused by radiother.  
of thyroid gland)  
(BONE MARROW  
aplasia caused by radiother. of thyroid gland, with  
thrombopenia)  
(HYPERTHYROIDISM, therapy  
radiother. causing bone marrow aplasia, compl. with  
thrombopenia)

HANICKI, Zygmunt

A case of hypoprothrombinemia with thrombocytopenia and capillaropathy.  
Polskie arch. med. wewn. 25 no.1a:189-190 1955.

1. Z II klin. chor. wewn. A.M. w Krakowie; kier. prof. dr. T.Tempka.
  - (VITAMIN K, deficiency  
with thrombopenia & dis. of capillaries)
  - (BLOOD PLATELETS, diseases  
thrombopenia with vitamin K defic. & dis. of capillaries)
  - (HEMORRHAGIC DIATHESIS  
thrombopenia with vitamin K defic. & dis. of capillaries)
  - (CAPILLARIES, diseases  
complicated by vitamin K defic. & thrombopenia)

HANICKI, Zygmunt

Cytomorphology of melanoblastoma in the light of personal research.  
Polski tygod.lek. 10 no.21:688-691 23 My '55.

1. Z II Kliniki Chorob Wewnętrznych Akademii Medycznej w Krakowie:  
kier prof. dr T. Tempka)Krakow, ul. Kopernika 15.  
(MELANOMA  
cytomorphology)

HANICKI, Z.

II. Klin. nem. vnitřních lek. Akad., Krakowě. \*Cytomorfologické znaky 'L.E.' buněk, podle vlastních pozorování za použití obyčejného a fázového mikroskopu. Cytomorphological signs of L. E. cells following personal observations using a normal and a phase microscope ČAS. LÉK. ČES. 1954, 93/20 (530-532) Illus. 10

L. E. cells (the author uses the term thesaurocytes) are not pathognomonic of erythematous lupus and the name thesaurocytes points more satisfactorily to a wider aetiology. The phase microscopy suggests that the formation present within the cells originates from disintegration of the nuclei. Pojer - Brno (VI, 5, 13)

SO: EXCERPTA MEDICA, Sec. XIII, Vol. 9 No. 2, February 1955

HANICKI, Zygmunt, Krakow, Wyspianskiego 11

Cytomorphological manifestations of blood proteins disorders.  
Polskie arch. med. wewn. 24 no.6:1079-1084 1954.

1. Z II Kliniki chorob wewn. Akademii Med. w Krakowie; kierownik:  
prof. dr. med. T.Tempka  
(BLOOD PROTEINS  
disord. cytomorphol. manifest.)

HANICKI, Zygmunt

A case of plasma cell leukemia with  $\alpha_2$ - $\gamma$ -hyperglobulinemia and extensive cutaneous changes. Przegl. lek. Krakow 10 no.12a: 351-359 Dec 54.

1. Z II kliniki chor. wewn. A.M. w Krakowie, Kierownik: prof. dr. T.Tempka. Z zakl. anatomii patologicznej A.M. w Krakowie -- kierownik prof. dr. J.Kowalczykowa.

(LEUKEMIA

plasma cell with  $\alpha_2$ - $\gamma$ -hyperglobukinemia & cutaneous changes)

(SERUM GLOBULIN

$\alpha_2$ - $\gamma$ -hyperglobulinemia in plasma cell leukemia, with cutaneous changes)

(SKIN, in various diseases

leukemia, plasma cell, with  $\alpha_2$ - $\gamma$ -hyperglobulinemia)

HANICKI, Zygmunt (Krakow, ul. Wyspianskiego 11)

Cytomorphologic studies with ordinary and phase microscopes on properties of LE cells. Polski tygod. lek. 9 no.21:652-655 24 May 54.

1. Z II Kliniki Chorob Wewnętrznych Akademii Medycznej w Krakowie;  
kierownik: prof. dr Tadeusz Tempka.  
(LUPUS ERYTHEMATOSUS,  
L.E. cells, microscopy)  
(MICROSCOPY,  
of L.E. cells)



LIANICKI Z.  
 TETKA and LIANICKI Z.

TETKA and LIANICKI Z. II. Klin. Chor. Wewn., Akad. Med., Krakow, \*Mazodniemie swoistosci komorek 'L.E.' \*The problem of specificity of the 'L.E.' cells  
 Pol. L. Arch. Med. Wewn. 1963, 23/1 (93-102) Grapus 1 illus. 10

In a case of chronic basophilic leukaemia the hepatograms and apelograms with and without heparin showed the presence of 'L.E.' cells, primarily described by Hargraves as being pathognomonic of lupus erythematosus and the Libman-Sacks syndrome. The morphological particularities of these cells led to the classification as basophils, neutrocytes and unidentified cells. Close to the cells some bodies were found which resembled the inclusions of the L.E. cells. The total serum protein content was 6.63%. Electrophoresis demonstrated a decreased albumin level and increased globulin fractions (especially  $\alpha_1$  and  $\alpha_2$ ). The appearance of the bodies included in the cells is considered to be related to the dysproteinemia (hyperglobulinaemia) which depends on the increased blood heparin level probably due to the action of abnormally numerous basophils (heparinocytes). As the L.E. cells can not be considered to be pathognomonic of lupus erythematosus or Libman-Sacks syndrome the term 'thesaurocytes' is preferred. Dux - Gliwice (11, 13)

SO: EXCERPTA MEDICA, Vol. No. 6, Section VI, June 1964

HANICKI 2  
Excerpta Medica Sec 16 Cancer Vol. 2/5 May 54

2271. HANICKI Z. Z II Klin. Chorób Wewn. A.M., Kraków. Stosunek ziarnicy złośliwej do ~~mieszaka Hodgkina~~ *Hodgkin's disease and Hodgkin's sarcoma* Polsk. Tyg. lek. 1953, 8/7 (256-260) Illus. 7

A case is described in which the first diagnosis 'lymphogranulomatosis maligna' was replaced during the patient's life by that of Hodgkin's sarcoma. The diagnosis was based on biopsy, the second biopsy being performed one year after the first. Phase-microscopy was very useful in the differentiation of the cells. Gibinski - Wrocław

**HADICKI, Z.**

New method for diagnosing Libman-Sack's disease with special reference to the value of this method in the clinical practice of internal medicine. Przegl. lek., Krakow 8 no.12:355-359 1952. (CLML 24:2)

1. Of the Second Internal Clinic (Head--Prof. T. Tempka, M.D.) of Krakow Medical Academy.

HANICKI, Z.

Effect of heparin on albumin level of blood plasma and serum.  
Przegl. lek., Krakow 8 no. 3:68-73 1952. (CLML 22:5)

1. Of the Second Internal Clinic (Head--Prof. T. Tempka, M. D.)  
of Krakow Medical Academy.

HANICKI, Z;PAJAKOWA, E.

Biological tests in diagnosis of hemophilia. Przegl. leg., Krakow  
8 no.1:10-11 1952. (CLWL 22:2)

1. Of the Second Clinic of Internal Diseases (Head--Prof. Tadeusz  
Tempka, M. D.) of Krakow Medical Academy.

HANICKI, Z.

Role and value of the level of neutral 17-ketosteroids in urine in a clinic of internal diseases. Polski tygod. lek. 7 no. 33-34:1015-1019 (CML 23:5)  
25 Aug 1952.

1. Of the Second Internal Clinic (Head--Prof. Tadeusz Tempka, M.D.) of Krakow Medical Academy.

GIZA, Tadeusz; HANICKA, Magdalena; HOFNIK, Norbert; JELONEK, Adam;  
REMBIESOWA, Halina

Effect of radioactive strontium on the course of vitamin D-2  
therapy of experimental rickets in rats. Pol. tyg. lek. 19  
no.27:1030-1031 6 Je'64

1. Z I Kliniki Dzieciecej Akademii Medycznej w Krakowie;  
kierownik: prof. dr. Tadeusz Giza.

GIZA, Tadeusz; HANICKA, M.; REMBIESOWA, H.

Effect of ionizing radiations on the hematopoietic system in children.  
Pol. tyg. lek. 17 no.28:1102-1105 9 J1 '62.

1. Z I Kliniki Dziecięcej AM w Krakowie; kierownik: prof. dr Tadeusz  
Giza.

(LEUKEMIA)

(RADIATION INJURY)



GEBALA, A.; HANICKA, M.; KRET, B.

Investigations on the sex chromation in oral mucosa smears in  
children. Folia biol 8 no.1/2:97-104 '60. (EEAI 10.4)

1. Pediatric Clinic, Medical Academy, Krakow; head: Prof. Dr. T.Giza  
and Department of Histology, Medical Academy, Krakow; head: Prof.  
Dr. J.Ackermann.

(CHILDREN)  
(SEX (BIOLOGY))  
(CHROMATION)  
(MUCOUS MEMBRANE)  
(MOUTH)

HANICKA, Magdalena; MALESKI, Karol

Hemolytic syndromes in children in the Children's Clinic of the Medical Academy in Cracow. *Pediat. polska* 32 no.10:1109-1124 Oct 57.

1. Z Kliniki Dziecięcej A. M. w Krakowie Kierownik: prof. dr med. T. Giza  
Adres: Krakow: ul 2, Klinika Pediatria A. M. Strzelecka.  
(ANEMIA, HEMOLYTIC, in inf. & child  
(Pol))

*HANICKA, MAGDALENA*

FEDECZKO, Danuta; HANICKA, Magdalena

Case of nephrolithiasis with unusual course. Pediat. polska 32 no.8:  
929-932 Aug 57.

1. Z Kliniki Chorob Dzieci A. M. w Krakowie Kierownik: prof. dr Med.  
T. Oisa. Adres: Krakow, ul. Strzelecka 2, Klinika Chorob Dzieci A. M.  
(KIDNEYS, calculi  
in inf., unusual case (Pol))